The claims defining the invention are as follows:

1.   A method of entering input into a computing system including the steps of:

         (a)   detecting input movements by means of a panel including an array of sensors;

         (b)   processing the detected input movements by consulting a knowledge database to identify a corresponding instruction signal for each detected input movement; and

         (c)   transmitting the instruction signal to the computing system.

2.   A method according to claim 1, wherein the processing step involves using a hierarchical control structure including one or more sub processes to be invoked by a main process in response to a particular type of detected input movement such that the sub process can associate each detected input movement with an appropriate instruction signal.

3.   A method according to claim 2, wherein particular input movements are associated with operation of the panel in any one or more of the following modes:

         (a)   keyboard modes;

         (b)   mouse modes;

         (c)   scripting modes;

         (d)   device modes;

         (e)   customer modes; and

         (f)   idle mode.

4.   A method according to claim 2 or 3, wherein the main process assigns a priority value to each sub process invoked via a registration process thereby ensuring that a sub process having a minor priority value does not impede a sub process having a major priority value.

5.   A method according to any one of claims claim 2 to 4, wherein a sub process claims a region of the panel thereby causing all input movements received via the region to be processed by that sub process.

5   6.   A method according to claim 5, wherein more than one sub process claims the same or part of the same region of the panel such that the regions claimed by independent sub processes overlap.

7.   A method according to claim 5 or 6, wherein sub processes which claim

10   an overlapping region of the panel proceed on the basis of their priority values.

8.   An input system including:

        (a)   a panel including an array of sensors for detecting input movements;

15   (b)   a processor for processing the detected input movements by consulting a knowledge database to identify a corresponding instruction signal for each detected input movement; and

        (c)   a signal transmission means for transmitting the instruction signals to the computing system.

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9.   An input system according to claim 8, further including computer software which causes the processor to operate using a hierarchical control structure including one or more sub processes to be invoked by a main process in response to a particular type of detected input movements such that the sub

25   process can associate the detected input movements with an appropriate instruction signal.

10.   An input system according to claim 9, wherein particular input movements are associated with operation of the panel in any one of the

30   following modes:

        (a)   keyboard modes;

        (b)   mouse modes;

        (c)   scripting modes;

        (d)   device modes;

(e)   customer modes; and

(f)   idle mode.

11.   An input system according to claim 9, wherein the sensors for detecting
input movements are light detecting sensors.

12.   An input system according any one of claims 9 to 11, wherein the
sensors for detecting input movements are complementary metal oxide
semiconductor sensors.

13.   An input system according to any one of claims 9 to 12, wherein the input
movements detected are the movements of one or more user fingers.

14.   An input system according to any one of claims 9 to 13, further including
a movement indicating device, wherein the input movements detected are the
movements of the movement indicating device, the movement of which across
the surface of the panel indicates an instruction signal to move in the direction
indicated with the movement indicating device.

15.   An input system according to claim 14, wherein an application of
pressure to the movement indicating device causes an input movement which is
interpreted by the processor as indicating an instruction signal to move
downwards, and reducing the pressure applied to the movement indicating
device causes an input movement which is interpreted by the processor as
indicating an instruction signal to move upwards.

16.   An input system according to claim 13 or claim 15 wherein the amount of
pressure being applied to the movement indicating device is detected by
reference to the size of an area of contact between the fingers or movement
indicating device and the surface of the panel, or by reference to change in size
of an area of contact between the fingers or movement indicating device and
the surface of the panel.

17.   An input device for use with a computing system, the input device including:

        (a)   a panel including an array of sensors for detecting input movements;

5   (b)   means of transmitting the detected input movements to a processor for processing by consulting a knowledge database to identify a corresponding instruction signal for each detected input movement for transmission to the computing system.

10   18.   An input device according to claim 17, wherein particular input movements are associated with operation of the panel in any one of the following modes:

        (a)   keyboard modes;

        (b)   mouse modes;

15   (c)   scripting modes;

        (d)   device modes;

        (e)   customer modes; and

        (f)   idle mode.

20   19.   An input device according to claim 17 or 18, wherein the sensors for detecting input movements are light detecting sensors.

20.   An input device according any one of claims 17 to 19, wherein the sensors for detecting input movements are complementary metal oxide 25   semiconductor sensors.

21.   An input device according to any one of claims 17 to 20, wherein the input movements detected are the movements of one or more user fingers and/or movement indicating devices.

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22.   A computer software program for processing input for a computing system, the computer program including:

        (a)   a means for receiving input movements from a panel including an array of sensors;

(b)   a means for processing the input movements including consulting a knowledge database to identify a corresponding instruction signal for each input movement; and

(c)   a means for transmitting the instruction signals to the computing 5   system for output.

23.   A computer software program according to claim 22, wherein the means for processing the input movements involves a hierarchical control structure including one or more sub processes to be invoked by a main process in 10   response to a particular type of detected input movement such that the sub process can associate each detected input movement with an appropriate instruction signal.

24   A knowledge database for use in conjunction with an input system 15   according to claim 8, the knowledge database storing information relating to different modes of operation of the input system, different movements which can be detected by the input system, corresponding signals associated with the different detectable movements in different modes of operation of the input system, and supporting information such as how to assign priorities to sub 20   processes associated with the processing of detected movements, and how to manage computing resources.

25.   A knowledge database according to claim 24, wherein the knowledge database is dynamic, allowing an operator to change or redefine the database 25   to fit individual circumstances.

26.   A knowledge database according to claim 24, wherein the knowledge database interacts with external applications and can be modified externally by host computing system, independent application software and external devices.
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27.   A knowledge database according to claim 26, wherein the data in the knowledge database is supplied partially or completely by the computing system, independent application software and/or external devices, so that the knowledge database is customised according to the needs of the computing system, independent application software and/or external devices.

28.   A knowledge database according to claim 27, wherein the customised knowledge database forms an integral part of the computing system, independent application software and/or external devices.